

UNION CARBIDE CORPORATION

METALS DIVISION

July 18, 1979

URAVAN, COLORADO 81436



Mike Thompson
Reclamation Hydrologist
Division of Oil, Gas and Mining
1588 West North Temple
Salt Lake City, Utah 84116

Dear Mike:

The attached permit application is for the Redd Block Four Mining Permit. These properties are contiguous to those of the Hecla Shaft. The proposed shaft location is approximately one mile northeast of the Hecla Shaft.

The surface facilities will be very similar to the Hecla Shaft. It is hoped that on-site work may be approved by November 1, 1979.

If there are further questions or information required, please do not hesitate to call.

Sincerely,

A handwritten signature in dark ink, appearing to read "Kent Dahlquist".

Kent Dahlquist
Mine Engineering Department

KD:fje

W/Enclosures

UTAH STATE
Mining Permit Application

REDD BLOCK FOUR

Union Carbide Corporation
Uravan, Colorado

*See amended letter
11-1-79*

REDD BLOCK FOUR

MINING PLAN

Confidential

The uranium ore occurs in the Saltwash sandstone member of the Morrison Formation approximately ninehundred feet below the surface. Mining will be conducted in a sound technical and prudent miner-like fashion utilizing a random-room and pillar technique.

Confidential

The shaft site and main ancillary facilities will be located approximately 1,600 feet east and 500 feet north of the southwest corner of Section 33. The proposed site is located on a southern alluvial fan of the La Sal Mountains having a slope of approximately-5 to-8 degrees to the southwest. Present vegetative cover is predominantly sagebrush with associated vegetative species. Surface disturbances will be necessary for site leveling, access roads and dump area. Some disturbance is already present from drilling and ranching activities. Topsoil will be stockpiled and stabilized where practical in these and future construction operations affecting the surface.

A single, concrete lined, twelve foot shaft entry is proposed with construction to begin in late 1979 or early 1980. Development headings would be driven to the east and to the west. A seven or eight foot diameter venthole will be drilled and lined in 1980 or 1981 to serve as a secondary escapeway. It is anticipated that five or more ventholes, 5, 7, or 8 feet in diameter will be required during the life of the mine.

Waste rock generated from mine development will consist of sandstone and mudstones and will be deposited on the surface to the south and west of the shaft. Where practical topsoil affected by dump expansion will be salvaged and stockpiled. Normal "over the edge" waste dumping will tend to naturally sort the waste materials with the larger rock materials rolling to the bottom, thus forming a free draining waste pile, with an expected 35 degree angle of repose. Past mining experience indicates that slope stability will not be a problem.

The waste rock is expected to be similar in composition to that of the La Sal - Snowball Mine. Testing by Colorado State University found the La Sal - Snowball mine wastes to be capable of supporting salt tolerant vegetation, with a ph of 7.8 and to be low only in phosphorous, with trace elements present.

This operation is not expected to significantly affect either surface or groundwater systems. There are not natural water bodies in the area other than ephemeral drainage

channels. A large dry wash passes through the proposed site area in a south-westerly direction. A culvert or small bridge may have to be installed to cross this channel. Surface facilities and waste dump will be constructed so as to not significantly interfere with the surface drainage patterns. Water for mining operations and change room facilities will be provided by a well located on site. If significant aquifers are encountered in ventilation shaft drilling, these will be lined so as to prevent co-mingling of aquifers and entrance into the mine workings.

The shaft site is located approximately 500 feet east of an existing road and will require the construction of a haulage road for site access. Other small service roads will be required to drill and service ventilation shafts. All roads will be constructed so as to insure proper drainage and erosion control.

REDD BLOCK FOUR

RECLAMATION

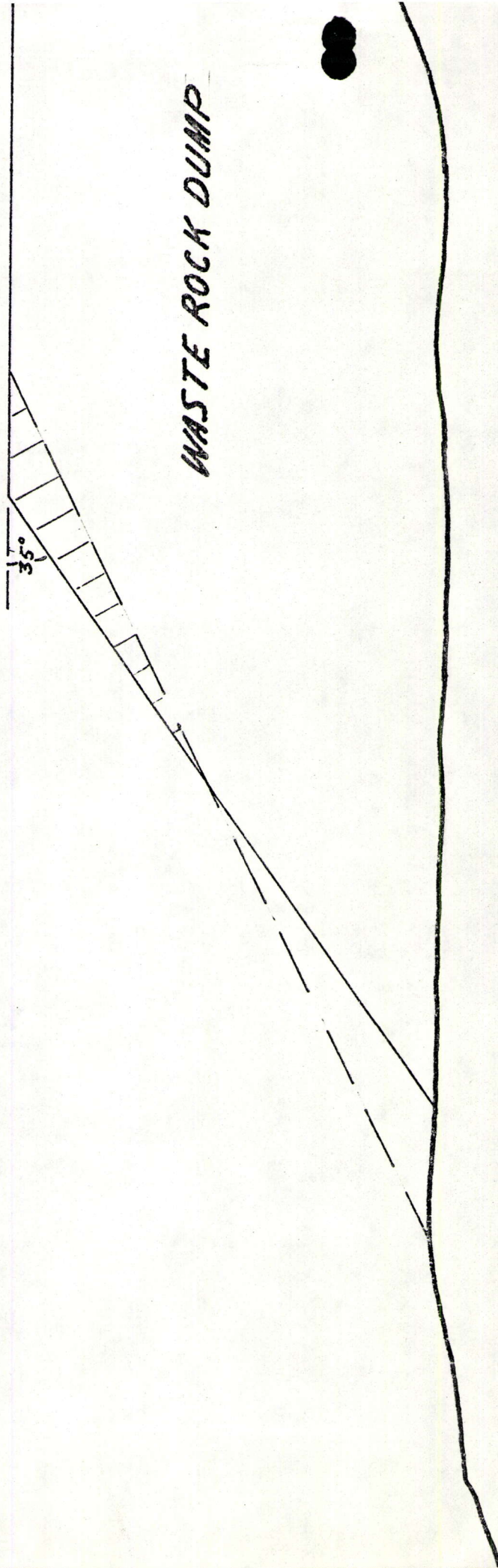
Upon final abandonment of the mine, surface debris, scrap metal, discarded wood and other materials will be buried or removed from the site. The headframe, buildings and other surface facilities will be dismantled and removed. The shaft and ventilation holes will be sealed with suitable concrete-steel covers to prevent accidental or unauthorized entry.

Dumps, pads, and other disturbed areas will be stabilized. Stabilization will consist of rounding of the outer edges of the dumps and pads, reducing the slope of waste rock faces and regarding of drainage contours on the affected areas. Topsoil and overburden will be spread back over these areas where possible. Roads will be graded to match the existing topography.

Compacted surfaces will be scarified, and seeded as recommended and then drag covered. Seeding will preferably take place in the fall. At present there are no plans for the addition of a fertilizer. However, should revegetation tests prove soil amendments significantly helpful in establishing vegetation, then amendments and other proven surface techniques will be employed.

TYPICAL CROSS SECTION
OF REGRADED AREA

NO SCALE



UNION CARBIDE CORPORATION
METALS DIVISION

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Chief Executive Officer

Warren M. Anderson
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President, Metals Division

R. L. Folkman
Executive Vice-President, Metals Division

O. J. Malacarne
General Manager, Mining & Milling

J. F. Frost
Manager, Plateau Operations

EXHIBIT C

Mine: Redd Block Four

File No: ACT/037/046

Submitted by:

Applicant Union Carbide Corporation

Representative J. F. Frost

Address Union Carbide Corporation

Box 1029 Grand Junction 81501

(303) 245 - 3700

Division of Oil, Gas, and Mining
1588 West North Temple
SLC, UT. 84116

Re: Commitment to Rule M-10

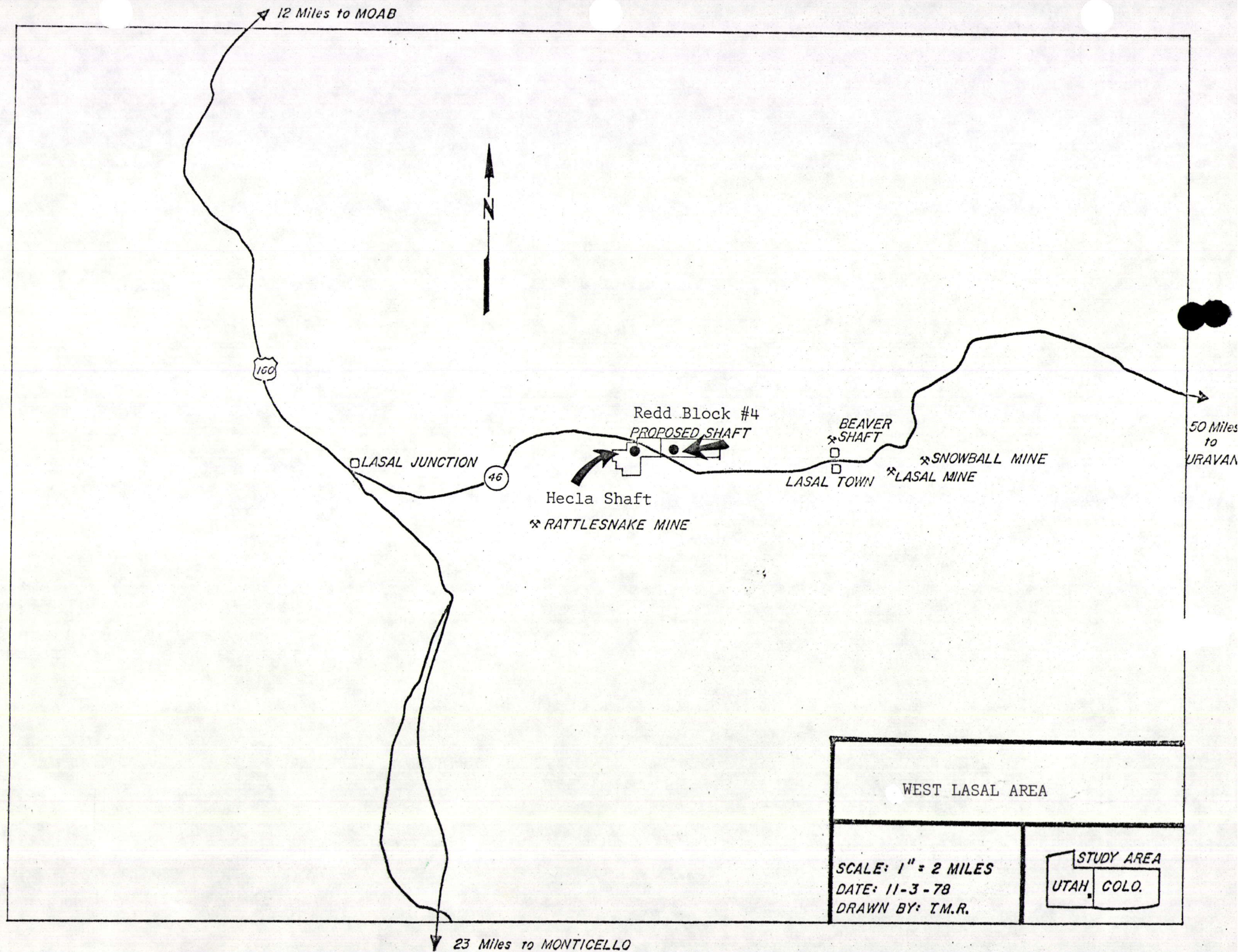
Gentlemen:

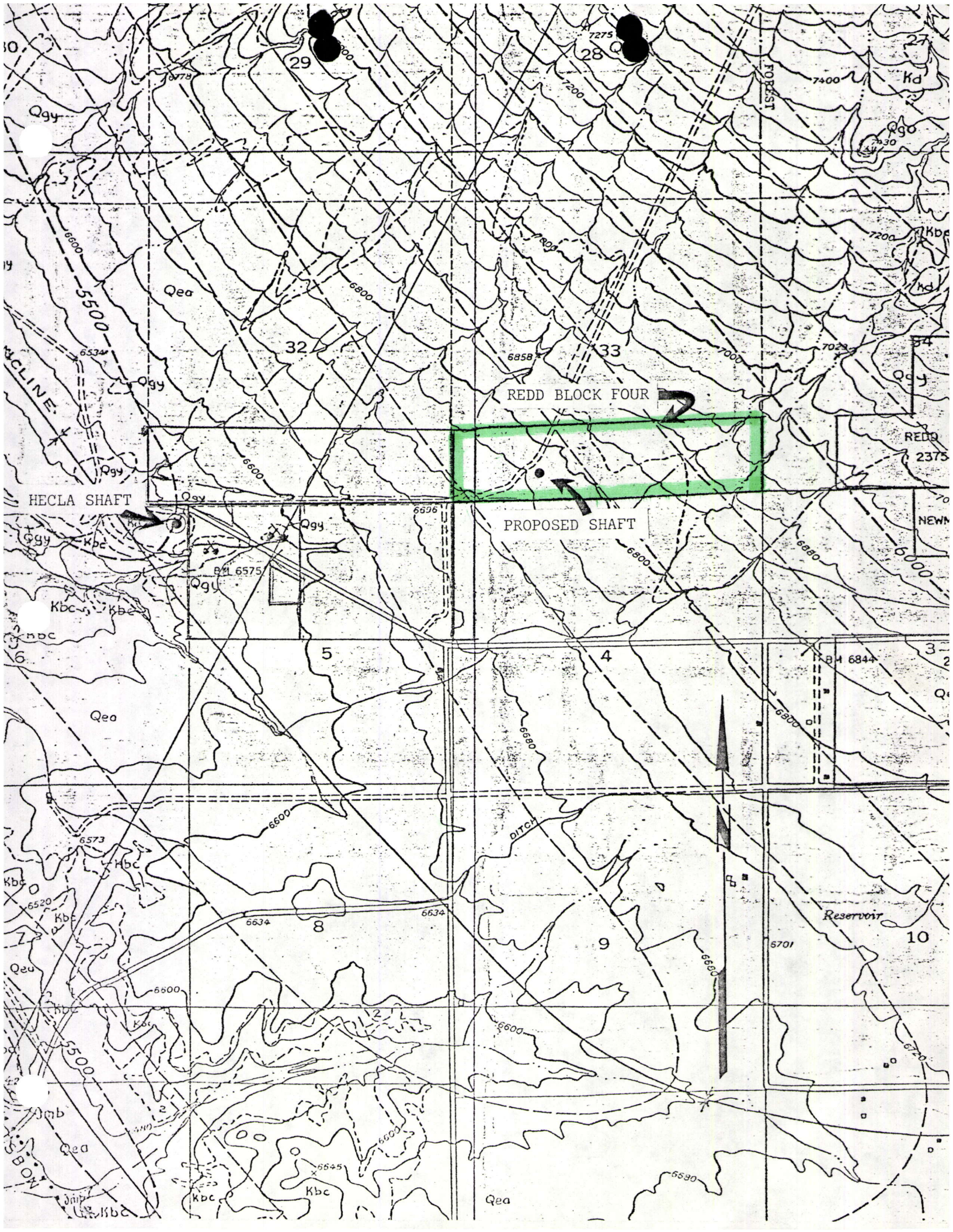
I hereby commit the applicant to comply with Rule M-10, "Reclamation Standards" in its entirety, as adopted by the Board of Oil, Gas, and Mining on March 22n 1978.

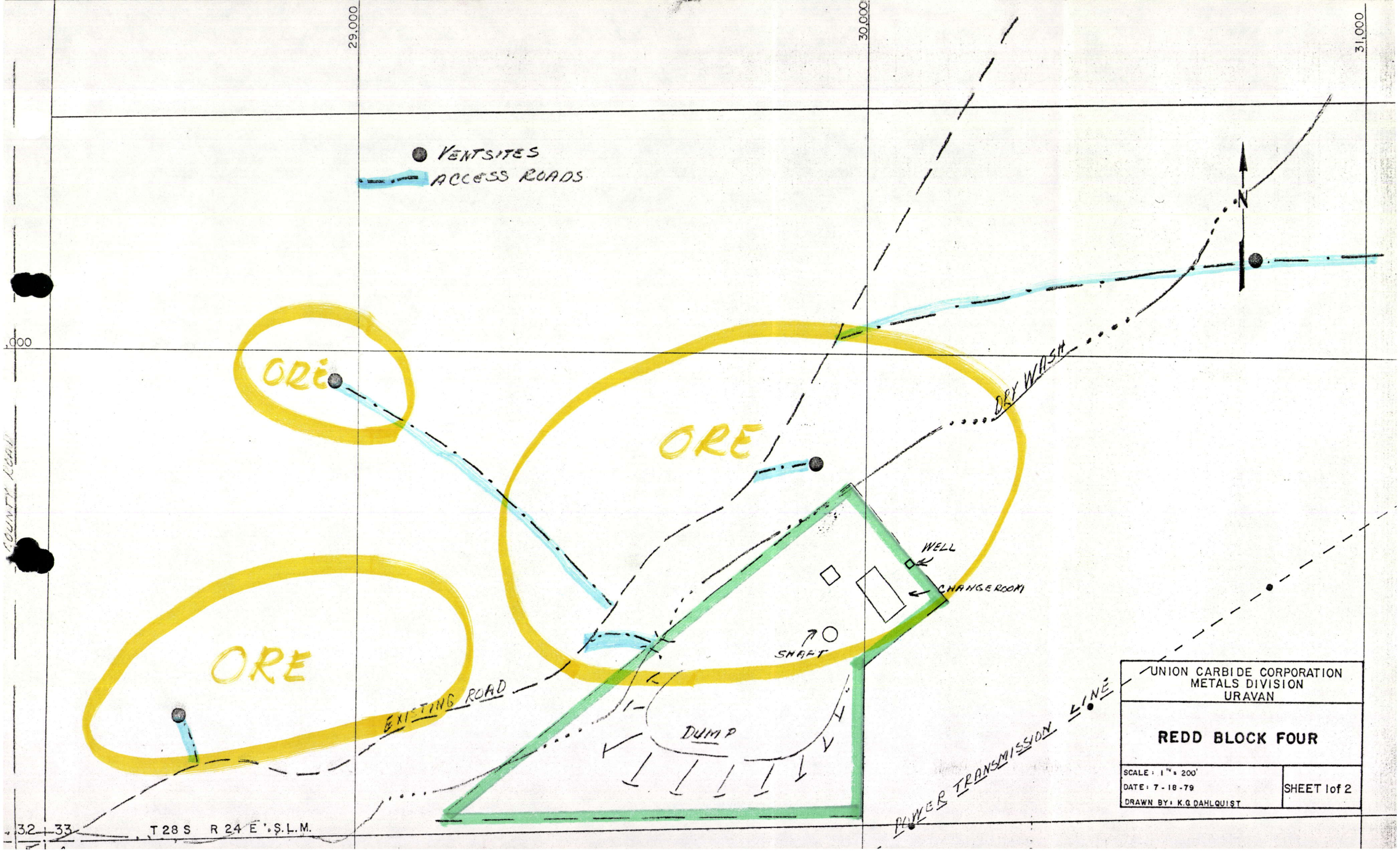
The applicant will achieve the reclamation standards for the following categories as outlined from Rule M-10 on all areas of the land affected by this mine, unless a variance is granted in writing by the Division.

<u>Rule</u>	<u>Category of Commitment</u>
M-10(1)	Land Use
M-10(2)	Public Safety & Welfare
M-10(3)	Impoundments
M-10(4)	Slopes
M-10(5)	Highwalls
M-10(6)	Toxic Materials
M-10(7)	Roads and Pads
M-10(8)	Drainages
M-10(9)	Structures & Equipment
M-10(10)	Shafts and Portals
M-10(11)	Sediment Control
M-10(12)	Revegetation
M-10(13)	Dams
M-10(14)	Soils

My Commission Expires: My Commission expires Sept. 5, 1982







32,000

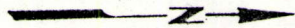
33,000

UNION CARBIDE CORPORATION
METALS DIVISION
URAVAN

REDD BLOCK FOUR

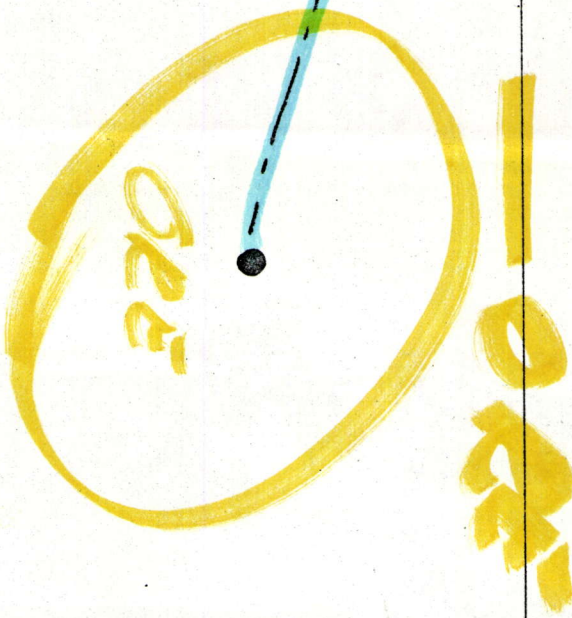
SCALE: 1" = 200'
DATE: 7-18-79
DRAWN BY: K.G. DAHLQUIST

SHEET 2 of 2



VENT SITES
ACCESS ROADS

88,000



POWER LINE

T 28 S R 24 E S.L.M.